

Project FOCUS
Best Lessons
FOURTH GRADE

Title of Lesson: Simple Machines

Theme: Physical Science

Unit Number: 5 **Unit Title:** Force, Motion, and Simple Machines

Performance Standard(s) covered (enter code):

S4P3

S4CS4

Enduring Standards (objectives of activity):

HABITS OF MIND

Asks questions- yes

Uses numbers to quantify

Works in a group- yes

Uses tools to measure and view – yes

Looks at how parts of things are needed- yes

Describes and compares using physical attributes

Observes using senses –yes

Draws and describes observations

Content (key terms and topics covered):

Essential Questions: (1) How do simple machines impact your work?

Enduring understandings: The position of an object can be described by locating it relative to another object or the background. An object's motion can be described by tracing and measuring its position over time.

Content: simple machines make work easier.

Key Terms: force, motion, speed

Learning Activity (Description in Steps):

Abstract (limit 100 characters): To allow students to view how simple machines are used in our every day lives.

Details:

(Use these to demonstrate that we *use* simple machines everyday.)

- Give every child a piece of paper and a single staple.
- Ask them to put the staple in the paper (they will try and it will take a long time and not be easy). Then ask: what simple machine staples our paper easily? (They will all go... oh yeah, a *stapler!*)
- You can then let them all staple their paper and see how this simple machine works!
- Now, ask the kids to make 3 even, perfectly round holes in their paper. (Again, they will try and it will be hard and they will tear the paper).
- Ask them: what simple machine makes 3 even holes in paper? (They will say... oh yeah, a *hole puncher!*)
- Then, you can make them try to put together something with a screw.
- And introduce the *screwdriver*, and how easily it does the job!
- I suggest just showing them how the coke is opened when you pull the metal tab and apply pressure (use of a *lever!*)
- You can ask them all to try and tear a piece of string (they will try hard and struggle).
- Then show how *scissors* are a great simple machine for cutting!

Material Needed (Type and Quantity):

1. Hole Puncher
2. Stapler (and staples)
3. Paper
4. Screw Driver (and something with a screw in it)
5. Can of coke (with pop top-to show use of a lever)
6. String
7. Scissors

Notes and Tips:

None.

Sources/References:

None.